Helio Henrique Lopes Costa Monte-Alto

Software Engineer

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WORK EXPERIENCE

Software Analyst (Developer), HSBC Global Technology - *Jul/2013   - Jul/2014* - Curitiba,
PR - Brazil

→ I was a Full Stack Developer, focused on Java, using an Agile methodology in a
global team.

→ I worked on a project called Client Docs, implementing new functionalities and
fixing bugs in a multi-tier architecture software. I have worked both on the
back-end and front-end.

→ I used Test-Driven Development, getting some experience with unit testing using
JUnit.

→ I mainly developed using Spring Framework and Hibernate for Java, but also
eventually developed in Javascript/JQuery in the front-end, as well as with PL/SQL
(Oracle) scripts and batch processes for Data Fix and Data Load in the back-end.

→ Used some interesting tools like Rational Application Developer, Rational Team
Concert (version control and management of tasks, revision control, build
management, and reports), Maven and Sonar.

→ Took part on the daily deployment of the application in a Websphere Application
Server.

Assistant Professor, Federal University of Paraná - *Aug/2014 - present* - Palotina, PR -
Brazil

→ I am currently a computer science professor/lecturer. The courses and topics I
teach: Object-Oriented Programming, Object-Oriented Analysis and Design,
Software Engineering, Web Development (always experimenting new languages

and frameworks), Functional Programming, Databases (SQL and NoSQL), Algorithms and Data Structures, Multi-Agent Systems and Semantic Technologies.

→ I like to teach hands-on classes, using ideas like Coding Dojo and Pair Programming together with my students.

SIDE PROJECTS

DiSEN - Distributed Software Engineering Environment: Java-based environment for process and project management of global software engineering teams. Developed and fixed some modules for it in my research activity at State University of Maringá.

Twitter-like Server: A Twitter-like server in Java.

Hinar.io (Android App): A hymn book app for Android I contributed to.

CTA Simulator: A traffic control simulator with strong object-oriented programming in Python.

Madrugada Robot: An educational robotics application which uses Arduino, Python and the Blockly framework.

Athena: A recommender system of course disciplines I contributed to. It uses PHP, Java, Prolog and fuzzy logic.

Clients Web Example Project (see branches): A project for managing clients and orders developed during a Web Development course I taught. It first uses PHP and MySQL (LAMP stack) and then it was refactored as a RESTful API and Web client using MEAN stack (MongoDB, Express, AngularJS and NodeJS).

Ling-Blocos: A prototype of a Scratch-like environment for programming with blocks.

Tetris and **Tetris Message**: A flexible Tetris in Javascript and HTML5, with a variant of Tetris for writing messages.

Rankeables: Starter project of a social network, continued by my students.

Simple To-Do List in Java with Spring MVC for my Web Development course.

Sudoku Solver: A solver in Python using a backtrack algorithm developed in my Programming Workshop course.

2021 PhD in Computer Engineering, Federal University of Technology - Paraná *(ongoing)*

2014 M.Sc. in Computer Science, State University of Maringá

2012 B.Sc. in Computer Science, State University of Maringá

TECHNICAL SKILLS

- Languages, frameworks and tools: Java, Java EE, JSP, JSF, Spring Framework, Python, C++, PHP, HTML, JavaScript, Jquery, Ajax, AngularJS, RESTful APIs, NodeJS, Scala, Racket/Scheme, Maven, Git, Mercurial, Eclipse, Hibernate, Junit.

- Databases: MySQL, Oracle, MongoDB.

- Ease of learning and technical improving on programming languages and technologies, due to a background on many paradigms and fundamentals.

- Eagerness to always develop better code. An appreciation for beautiful code and design.

- Good knowledge of agile methodologies (XP, Scrum), object-oriented analysis and design, software architecture, design patterns, functional programming, clean code and best development practices.

- Experience with distributed artificial intelligence (multi-agent systems) and semantic technologies research.

LANGUAGES

English - Advanced/Fluent

French - Beginner/Intermediate

Spanish - Intermediate/Advanced

Portuguese - Native